

## SOLID-STATE NON-INVASIVE THERMAL CYCLING SPECTROMETER

### ABSTRACT OF THE DISCLOSURE

5 A solid-state device for the non-invasive generation and capture of thermal gradient spectra from sample tissue. The device includes an infrared transmissive layered window assembly, a means for inducing a thermal gradient in sample tissues. Also provided is an infrared radiation detector for detecting infrared emissions emanating from the tissue as the transient temperature gradient progresses into the sample tissues. The sensor provides output signals proportional to the detected infrared emissions. A data capture means is provided for the sampling of output signals received from the infrared radiation detector as the induced temperature gradient progresses into the sample tissue.